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## THE GENUS PHATNOMA FIEBER

(TINGIDAE; HETEROPTERA)

BY EDMUND H. GIBSON

*United States Bureau of Entomology*

*Phatnoma* is one of the Tingid genera whose known distributions are limited to the tropical zone, and hence has some of the peculiar structural variations so characteristic of native groups of that region.

Fieber described the genus, in 1844, to include his *lacinata*, which is the genotype. The only other contributions to the knowledge of this group were made by Champion, in 1901, and Distant, in 1909, describing new species. Seven species are included in the genus, two of which are herein described as new.

The principal characters which distinguish *Phatnoma* are the long and numerous head spines, the extremely broad and flaring lateral membranous margins of the pronotum, whose angles terminate in spines, and the sharp carinae which separate the costal, subcostal, and discoidal areas of the elytra.

So far as is known the genus is of little economic importance, no food plants of any of the species having been recorded.

**PHATNOMA** Fieber

1844. Fieber, Ent. Mon., p. 57.

1901. Champion, Biol. Centr.-Am., Heteropt., ii, p. 2.

1910. Distant, Fauna British India, v, p. 102.

Head long, horizontal, with numerous spines as follows: one pair at base of head, one pair just in front of basal pair, one single spine just in front of second pair, jugae terminating in spines, and antenniferous tubercles spinous. First two segments of antennae very short, third very long, fourth about as long as first two taken together. Rostrum long. Pronotum tricarinate, without hood, and nearly truncate behind. Lateral margins of pronotum membranous, flaring, with four or more rows of areoles and directed forward, forward border being sinuate with angles spinous. Scutellum distinct. Elytra wide ovate, with claval area prominent. Other areas prominently separated by sharp carinae.

*Key to the Species*

1. Outer margin of costal area of elytra with a row of areoles much larger than other areoles of elytra.....**ovata** Champion  
Outer margin of costal area of elytra with areoles the same size as others of elytra .....2
2. Basal pair of head spines distinctly shorter than second pair. Outer border of pronotal lateral margins deeply sinuate and with two long acute points directed forwards.....**lacinata** Fieber  
Basal pair of head spines at least as long as second pair. Sinuation of pronotal lateral margins not so deep.....3
3. Pronotal margins with not more than four rows of areoles.  
**marmorata** Champion  
Pronotal margins with five or more rows of areoles.....4
4. Pronotal margins with more than seven rows of areoles.  
**annulipes** Champion  
Pronotal margins with less than seven rows of areoles.....5
5. Costal area with a longitudinal, undulating black line near inner margin.  
**costalis** Distant  
Costal area without such a line.....6
6. Light brown in general color, comparatively large. Subcostal area not widened at any one point.....**fletia** new species  
Dark brown in general color, comparatively small. Subcostal area widest just before the middle.....**spinosa** new species

**Phatnoma ovata** Champion

1901. Champion, Biol. Centr.-Am., Heteropt., ii, p. 4.

"Lighter or darker brownish-ochreous, the outer carinae of the pronotum and the costal margin and carinae of the elytra spotted with black or fuscous, the inner basal margin of the clavus also blackish; the small areolae of the pronotal and elytral margins hyaline; the legs and antennae testaceous, the apical joint of the latter black at the tip. Pronotum with the margins a little raised, angularly dilated before the middle as well as in front, becoming narrow behind, the anterior terminating in a short spine; the disc closely punctured, tricarinate, the outer carinae curved inwards in front. Elytra rather short, regularly oval, somewhat narrowly rounded at the apex; discoidal and subcostal areas equal in width, separated by a sharp-raised carina which extends forwards to the base, the discoidal area limited inwards by a moderately raised carina which extends to the apex of the subcostal area, both areas with several transverse or oblique raised lines, and, like the clavus and sutural area, with very small rounded areolae; costal area moderately broad, becoming narrow at the tip, with a row of oblong areolae along the margin and three rows of much smaller areolae within. Length  $3\frac{1}{4}$ – $3\frac{1}{2}$ , breadth  $1\frac{4}{5}$ –2 millim.

Hab. Guatemala, San Isidro, Panajachel, Zapote, Capetillo, Dueñas (Champion)."

The above is a copy of the original description. No specimens of this species were at hand for study, but it is very evident that the row of large areoles along the outer margin of the costal area of elytra will distinguish this from all other species of the genus.

***Phatnoma lacinata* Fieber**

1844. Fieber, Ent. Monographien, p. 57.

As this species is the genotype of the genus and the type specimen is not available for study, I do not feel warranted in setting forth a redescription of it from the original description and illustrations. However, it is very evident that this species is the only one of the genus which has the basal pair of head spines shorter than the second pair, and hence this character may be used as the diagnostic one for the species.

The type locality is "East Indies."

***Phatnoma marmorata* Champion**

1901. Champion, Biol. Centr.-Am., Heteropt., ii, p. 3.

"Brownish-ochreous or sepia-brown, mottled with fuscous, the fuscous markings on the costal area of the elytra forming numerous vague transverse fasciae, which sometimes terminate in a small black spot on the costal and inner margins, the apex of clavus and some spots on the carinae also black; the pronotal and elytral margins partly hyaline; the antennae testaceous, with the apical joint partly or entirely black, the third joint sometimes infusate; the legs testaceous, with the knees usually infusate, the femora with a yellow annulus before the apex. Pronotum with the margins raised, and broadly, acutely dilated before the middle as well as in front, becoming narrow behind, the anterior dilatation terminating in a rather long slender spine; the disc punctured closely and tricarinate, the outer carinae subparallel. Elytra moderately broad, suboval, broadly rounded at the apex; discoidal and subcostal areas equal in width, separated by a sharply raised carina, which extends forwards to the base, the discoidal area open behind and limited inwards by a curved carina which extends to near the tip of the elytra; the clavus and the sutural, discoidal, and subcostal areas with very small rounded punctiform areolae, the discoidal and subcostal areas each with about five transverse or oblique pallid raised lines; costal area rather broad throughout, closely reticulated, there being four rows of areoles at the middle, increasing to five or six behind. Length  $3\frac{1}{2}$ -4, breadth 2 millim.

Hab. Panama, Bugaba, Caldera, and David in Chiriqui (Champion)."

The collection of the United States National Museum contains eight specimens from Paraiso, Canal Zone, Panama, collected by Mr. E. A. Schwarz.

**Phatnoma annulipes** Champion

1901. Champion, Biol. Centr.-Am., Heteropt., ii, p. 4.

"Lighter or darker ochreous-brown, the expanded margins of the pronotum and the elytra more or less mottled with fuscous, the fuscous markings on the costal area of the elytra sometimes forming fasciae, the apex of the clavus and some spots on the carinae and costa black; the pronotal and elytral margins partly hyaline; the antennae testaceous, with the apical joint more or less black, the third joint sometimes infusate; the legs testaceous, with the knees usually infusate, the femora with a more or less distinct yellow annulus before the apex. Pronotum with the margins greatly raised, and very broadly and obliquely dilated forwards, angularly produced in front and also at the sides anteriorly, the anterior dilatation terminating in a short spine, the margin rounded behind the outer angle; the disc closely punctured and tricarinate, the outer carinae parallel. Elytra moderately broad, suboval, broadly rounded at the apex; discoidal and subcostal areas separated by a sharply raised carina which extends forwards to the base, the discoidal area limited inwards by a curved carina which extends to near the tip of the elytra; the clavus and the sutural, discoidal, and subcostal areas with very small rounded punctiform areolae, the discoidal and subcostal areas each with about five transverse or oblique pallid raised lines; costal area broad to the tip, closely reticulated, there being five rows of areolae at the middle, increasing to six or seven behind. Length  $3\frac{1}{2}$ -4, breadth  $1\frac{9}{10}$ - $2\frac{1}{10}$  millim.

Hab. Mexico, Frontera in Tabasco (H. H. Smith); Guatemala, Cahabon in Vera Paz, San Isidro (Champion); Panama, Volcan de Chiriqui (Champion)."

Several specimens from Alta Vera Paz, Guatemala, are in the collection of the United States National Museum.

**Phatnoma costalis** Distant

1909. Distant, Ann. Soc. Ent. Belg., liii, p. 113.

1910. Distant, Fauna British India, v, p. 102.

A copy of the original description is here given. This species may be easily distinguished by the undulating longitudinal line in the costal area of the elytra.

"Pale brownish-ochraceous, the lateral areas of the pronotum and the costal, subcostal and sutural areas of the elytra greyish; a small linear black spot in the discoidal area and a similar spot near the apex of sutural area; body beneath and legs reddish-brown; antennae with the third joint very long, apical joint piceous at apex; pronotum tricarinate, the lateral areas greyish with the margins of the areolets brownish, the lateral margins amplified and produced in two strong stout spines; costal area of the elytra with small brown margined areolets, a piceous undulated line near its inner margin and small piceous spots on its outer margin, the subcostal and discoidal areas with distinct pale transverse raised lines. Length 4 mill.

Hab.: Tenasserim; Myitta (Doherty)."

**Phatnoma fletia** new species

Head punctate, horizontal, as long as pronotum. Spines on head long and prominent, basal pair very long, each terminating in a slender curving tip, second pair long, normally stout, single spine prominent, jugae spines prominent and acute. Antenniferous tubercles spinous. Antennae with first two segments very short, basal segment slightly longer and more stout than second, third very long, fourth longer than first two taken together. Pronotum punctate, carinae parallel, membranous margins with five or six rows of areoles, angles acute, the anterior angles bearing definite spines. A slight indication of a posterior membranous margin in front of scutellum. Apex of scutellum distinct. Elytra oblong, with claval area long. Carinae separating subcostal and discoidal areas parallel. Subcostal area not widened before the middle. All areas of elytra areolate. General color brown, resembling *marmorata* Champion. Length, 4 mm.; width, 2.3 mm.

*Type*.—♀; *allotype*, ♂; one *paratype*, ♀. All specimens were collected by Mr. E. A. Schwarz at Porto Bello, Panama, during March, 1911. Type No. 22159, United States National Museum.

In general appearance it more nearly resembles *marmorata* Champion.

**Phatnoma spinosa** new species

Head horizontal, as long as pronotum. Spines on head long and prominent, basal pair very long, each terminating in a slender curving tip, second pair long, normally stout, single spine prominent, jugae spines prominent and acute. Antenniferous tubercles spinous. Antennae with first two segments very short, basal segment slightly larger and stouter than second, third very long, fourth longer than first two taken together. Pronotum punctate, carinae parallel, membranous margins with five rows of areoles, the fifth row somewhat reduced, angles acute with definite spines on anterior angles. A slight indication of a posterior membranous margin in front of the distinct apex of scutellum. Elytra oblong, with claval area long. Carinae separating subcostal and discoidal areas slightly bowed, making the subcostal area widest just before the middle. All areas of elytra areolate. General color very dark brown, resembling *marmorata* Champion and the previous species in pattern. Length, 3.5 mm.; width, 1.8 mm.

*Type*.—♂; Bohio, Canal Zone, Panama, collected by Mr. E. A. Schwarz, April 7, 1911. Type No. 22160, United States National Museum.